

Form PTO-1449

INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

(Use several sheets if necessary)

|                              |                               |
|------------------------------|-------------------------------|
| Docket Number 381092000721   | Application Number 09/611,257 |
| Applicant                    | Terrance P. SNUTCH, et al.    |
| Filing Date July 6, 2000     | Group Art Unit 1646           |
| Mailing Date: March 12, 2001 |                               |

O I P E JC133  
MAR 15 2001  
PATENT & TRADEMARK OFFICE

## U.S. PATENT DOCUMENTS

| Examiner Initials | Ref. No. | Date    | Document No. | Name | Class | Subclass | Filing Date If Appropriate |
|-------------------|----------|---------|--------------|------|-------|----------|----------------------------|
|                   | 1.       | 01/1995 | 5,386,025    | Jay  | 536   | 23.5     |                            |

## FOREIGN PATENT DOCUMENTS

| Examiner Initials | Ref. No. | Date    | Document No. | Country | Class | Subclass | Translation YES NO |
|-------------------|----------|---------|--------------|---------|-------|----------|--------------------|
| NSL               | 2.       | 02/1995 | WO 95/04144  | WO      |       |          |                    |
| MM                | 3.       | 12/1996 | WO 96/39512  | WO      |       |          |                    |
| ASB               | 4.       | 09/1998 | WO 98/38301  | WO      |       |          |                    |
| AB                | 5.       | 06/1999 | WO 99/28342  | WO      |       |          |                    |
| AB                | 6.       | 06/1999 | WO 99/29847  | WO      |       |          |                    |
| AB                | 7.       | 10/1992 | EP 0 507 170 | EP      |       |          |                    |

## OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

| Examiner Initials | Ref. No. | Title   |                       |
|-------------------|----------|---|-----------------------|
| MM                | 8.       | Cribbs, L.L. et al. (1998). <i>Circulation Research</i> 83:103-109. |                       |
|                   | 9.       | Lee, J.-H. et al. (1999). <i>J Neurosci</i> . 19(6):1912-1921.      | RECEIVED              |
|                   | 10.      | Perez-Reyes, E. et al. (1998). <i>Nature</i> 391:896-900.           | MAR 16 2001           |
|                   | 11.      | Trofatter, J.A. et al. (1995). <i>Genome Res</i> 5(3):214-224.      |                       |
|                   | 12.      | Williams, M.E. et al. (1999). <i>J Neurochem</i> 72(2):791-799.     | TECH CENTER 1600/2900 |

EXAMINER:

8/12/02 W.S.P.

DATE CONSIDERED:

8/12/02

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

|  |  |  |                        |   |                               |
|--|--|--|------------------------|---|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |                        | ATTY. DOCKET NO.<br>200130.512/ PP01598.002 | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  | APPLICANTS<br>Lewis T. Williams et al.                     |                        |   |                               |
|  |  | FILING DATE<br>June 30, 2000                               | GROUP ART UNIT<br>1641 | TRADEMARK OFFICE<br>APR 25 2001             |                               |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE     | NAME        | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE        |
|-------------------|----|-----------------|----------|-------------|-------|----------|-----------------------------------|
| MSK               | AA | 4,959,314       | 09/25/90 | Mark et al. | 435   | 69.1     | TECH CENTER 1600/2900 APR 26 2001 |

## FOREIGN PATENT DOCUMENTS

|     |    | DOCUMENT NUMBER | DATE     | COUNTRY | TRANSLATION<br>YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|-----|----|-----------------|----------|---------|--|
| MSK | AB | WO 97/40151     | 10/30/97 | WIPO    | TECH CENTER 1600/2900 APR 26 2001  |

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|     |    |  |
|-----|----|--|
| MSK | AC | Azzi A. et al., "The Protein Kinase C Family," <i>Eur. J. Biochem.</i> 208(3):547-557 (September 1992).  |
|     | AD | Baltz et al., "A LIM Motif Is Present in a Pollen-Specific Protein," <i>Plant Cell</i> 4(12):1465-1466 (December 1992).  |
|     | AE | Bandziulis et al., "RNA-Binding Proteins as Developmental Regulators," <i>Genes &amp; Development</i> 3(4):431-437 (April 1989).   |
|     | AF | Bazan J.F., "A Novel Family of Growth Factor Receptors: A Common Binding Domain in the Growth Hormone, Prolactin, Erythropoietin and IL-6 Receptors, and the p75 IL-2 Receptor $\beta$ -Chain," <i>Biochem. Biophys. Res. Commun.</i> 164(2):788-795 (October 31, 1989). |
|     | AG | Bazan J.F., "Structural Design and Molecular Evolution of a Cytokine Receptor Superfamily," <i>Proc. Natl. Acad. Sci. USA</i> 87(18):6934-6938 (September 1990).   |
|     | AH | Bennett et al., "Association between Ankyrin and the Cytoplasmic Domain of Band 3 Isolated from the Human Erythrocyte Membrane," <i>J. Biol. Chem.</i> 255(13):6424-6432 (July 10, 1980).  |
|     | AI | Berg, J.M., "Proposed Structure for the Zinc-Binding Domains From Transcription Factor IIIA and Related Proteins," <i>Proc. Natl. Acad. Sci. USA</i> 85(1):99-102 (January 1988).  |
|     | AJ | Bork, P., "Hundreds of Ankyrin-Like Repeats in Functionally Diverse Proteins: Mobile Modules that Cross Phyla Horizontally?," <i>Proteins: Structure, Function, and Genetics</i> 17(4):363-374 (1993).   |
|     | AK | Breeden et al., "Similarity Between Cell-Cycle Genes of Budding Yeast and Fission Yeast and the <i>Notch</i> gene of <i>Drosophila</i> ," <i>Nature</i> 329(6140):651-654 (October 15-21, 1987).   |
|     | AL | Brenner, S., "The Molecular Evolution of Genes and Proteins: A Tale of Two Serines," <i>Nature</i> 334(6182):528-530 (August 11, 1988).  |
| MSK | AM | Bürglin, <i>Guidebook to the Homeobox Genes</i> , Oxford University Press, Oxford, 1994, Chapter 3, "A Comprehensive Classification of Homeobox Genes," pp. 27-71.   |

|          |                     |                 |         |
|----------|---------------------|-----------------|---------|
| EXAMINER | N. (initials) 58as. | DATE CONSIDERED | 8/12/02 |
|----------|---------------------|-----------------|---------|

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

RECEIVED

|  |  |  |  |   |   |
|--|--|--|--|---|---|
| FORM PTO-1449<br>(REV.7-80)  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |  | ATTY. DOCKET NO.<br>200130.512/ PP01598.002 | APPLICATION NO.<br>09/611,527                                     |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  |  |  | APPLICANTS<br>Lewis T. Williams et al.      | O I P E<br>APR 25 2001<br>1641<br>U. S. PATENT & TRADEMARK OFFICE |
|  |  |  |  | FILING DATE<br>June 30, 2000                |   |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
|                   | BA |                 |      |      |       |          |                            |

## FOREIGN PATENT DOCUMENTS

RECEIVED

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | APR 26 2001           | TRANSLATION<br>YES NO |
|--|----|-----------------|------|---------|-----------------------|-----------------------|
|  | BB |                 |      |         | TECH CENTER 1600/2900 | REC'D APR 26 2001     |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

|     |    |  |
|-----|----|--|
| NgB | BC | Burd et al., "Conserved Structures and Diversity of Functions of RNA-Binding Proteins," <i>Science</i> 265(5172):615-621 (July 29, 1994).  |
|     | BD | Cailleau et al., "Breast Tumor Cell Lines From Pleural Effusions," <i>J. Natl. Cancer Inst.</i> 53(3):661-674 (September 1974).  |
|     | BE | Chandrasekaran et al., "Glycosaminoglycans of Normal and Malignant Cultured Human Mammary Cells," <i>Cancer Research</i> 39(3):870-880 (March 1979).   |
|     | BF | Charbonneau et al., "1002 Protein Phosphatases?," <i>Annu. Rev. Cell Biol.</i> 8:463-493 (1992).   |
|     | BG | Clarke et al., "Engineered Disulfide Bonds as Probes of the Folding Pathway of Barnase: Increasing the Stability of Proteins Against the Rate of Denaturation," <i>Biochemistry</i> 32(16):4322-4329 (April 27, 1993). |
|     | BH | Confalonieri et al., "A 200-Amino Acid ATPase Module in Search of a Basic Function," <i>BioEssays</i> 17(7):639-650 (1995).  |
|     | BI | Cosman et al., "A New Cytokine Receptor Superfamily," <i>Trends Biochem. Sci.</i> 15:265-270 (July 1990).  |
|     | BJ | D'Andrea et al., "Erythropoietin Receptor and Interleukin-2 Receptor $\beta$ Chain: A New Receptor Family," <i>Cell</i> 58(6):1023-1024 (September 22, 1989).  |
|     | BK | D'Andrea et al., "A New Hematopoietic Growth Factor Receptor Superfamily: Structural Features and Implications for Signal Transduction," <i>Curr. Opin. Cell Biol.</i> 2(4):648-651 (August 1990).                     |
|     | BL | Davletov et al., "A Single C <sub>2</sub> Domain from Synaptotagmin I Is Sufficient for High Affinity Ca <sup>2+</sup> /Phospholipid Binding," <i>J. Biol. Chem.</i> 268(35):26386-26390 (December 15, 1993).          |
|     | BM | Dhanasekaran et al., "Signaling By Dual Specificity Kinases," <i>Oncogene</i> 17(11):1447-1455 (September 17, 1998).   |
| ✓   | BN | Dreyfuss G. et al., "Heterogeneous Nuclear Ribonucleoprotein Particles and the Pathway of mRNA Formation," <i>Trends Biochem. Sci.</i> 13:86-91 (March 1988).  |

EXAMINER

Mr. Smed S Bar

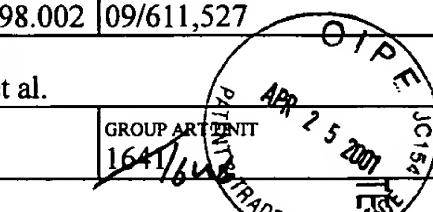
DATE CONSIDERED

8/12/02

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

RECEIVED

|  |  |  |   |                               |
|--|--|--|---|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |  | ATTY. DOCKET NO.<br>200130.512/ PP01598.002 | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  | APPLICANTS<br>Lewis T. Williams et al. |   |                               |
|  |  | FILING DATE<br>June 30, 2000           | GROUP ART UNIT<br>1641                      | TRADEMARK OFFICE<br>1600/2900 |



## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----------------|------|------|-------|----------|----------------------------|
| CA                |                 |      |      |       |          | DEC 06 2001                |

RECEIVED

## FOREIGN PATENT DOCUMENTS

|    | DOCUMENT NUMBER | DATE | COUNTRY               | TRANSLATION<br>YES NO |
|----|-----------------|------|-----------------------|-----------------------|
| CB |                 |      | TECH CENTER 1600/2900 | APR 26 2001<br>NO     |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

|     |    |   |
|-----|----|---|
| NSB | CC | Drmanac et al., "Gene-Representing cDNA Clusters Defined by Hybridization of 57,419 Clones from Infant Brain Libraries with Short Oligonucleotide Probes," <i>Genomics</i> 37(1):29-40 (October 1, 1996).   |
|     | CD | Eklund et al., "Structural and Functional Relations Among Thioredoxins of Different Species," <i>Proteins: Structure, Function, and Genetics</i> 11(1):13-28 (1991).  |
|     | CE | Ellenberger, "Getting a grip on DNA Recognition: Structures of the Basic Region Leucine Zipper, and the Basic Region Helix-Loop-Helix DNA-Binding Domains," <i>Curr. Opin. Struct. Biol.</i> 4:12-21 (1994).  |
|     | CF | Erdmann et al., "PAS1, a Yeast Gene Required for Peroxisome Biogenesis, Encodes a Member of a Novel Family of Putative ATPases," <i>Cell</i> 64(3):499-510 (February 8, 1991).  |
|     | CG | Evans et al., "Zinc Fingers: Gilt by Association," <i>Cell</i> 52(1):1-3 (January 15, 1988).  |
|     | CH | Fischer et al., "Protein Tyrosine Phosphatases: A Diverse Family of Intracellular and Transmembrane Enzymes," <i>Science</i> 253(5018):401-406 (July 26, 1991).   |
|     | CI | Freyd et al., "Novel Cysteine-Rich Motif and Homeodomain in the Product of the <i>Caenorhabditis elegans</i> Cell Lineage Gene lin-II," <i>Nature</i> 344(6269):876-879 (April 26, 1990).   |
|     | CJ | Fröhlich et al., "Yeast Cell Cycle Protein CDC48p Shows Full-Length Homology to the Mammalian Protein VCP and Is a Member of a Protein Family Involved in Secretion, Peroxisome Formation, and Gene Expression," <i>J. Cell Biol.</i> 114(3):443-453 (August 1991). |
|     | CK | Fukuda et al., "Inositol-1,3,4,5-tetrakisphosphate Binding to C2B Domain of IP4BP/Synaptotagmin II," <i>J. Biol. Chem.</i> 269(46):29206-29211 (November 18, 1994).   |
|     | CL | Gastpar et al., "Methoxy-Substituted 3-Formyl-2-phenylindoles Inhibit Tubulin Polymerization," <i>J. Med. Chem.</i> 41(25):4965-4972 (December 3, 1998).  |
|     | CM | Gehring et al., "Homeotic Genes and the Homeobox," <i>Ann. Rev. Genet.</i> 20:147-173 (1986).   |

| EXAMINER  | DATE CONSIDERED |
|---|-----------------|
| Nimal S Ban   | 8/21/01         |
| * EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s). |                 |

RECEIVED

|  |  |  |                |   |                               |
|--|--|--|----------------|---|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |                | ATTY. DOCKET NO.<br>200130.512/ PP01598.002             | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  | APPLICANTS   |                | 1641 TRADEMARK UNIT                                     |                               |
|  |  | Lewis T. Williams et al.                                   |                | APR 15 2001<br>U.S. PATENT & TRADEMARK OFFICE<br>C-1641 |                               |
|  |  | FILING DATE<br>June 30, 2000                               | GROUP ART UNIT |   |                               |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE      |
|-------------------|----|-----------------|------|------|-------|----------|---------------------------------|
|                   | DA |                 |      |      |       |          | DEC 06 2001<br>IN CENTER 602900 |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION YES NO |
|--|----|-----------------|------|---------|--------------------|
|  | DB |                 |      |         |                    |

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|     |    |   |
|-----|----|---|
| NS3 | DC | Gehring, <i>Guidebook to the Homeobox Genes</i> , Oxford University Press, Oxford, 1994, Chapter 1, "A History of the Homeobox," pp. 3-10.  |
|     | DD | Gehring, W.J., "The Homeobox In Perspective," <i>Trends Biochem. Sci.</i> 17:277-280 (August 1992).   |
|     | DE | Gilman, "G Proteins: Transducers of Receptor-Generated Signals," <i>Ann. Rev. Biochem.</i> 56:615-649 (1987).   |
|     | DF | Gleason et al., "Thioredoxin and Related Proteins in Prokaryotes," <i>FEMS Microbiol. Rev.</i> 54(4):271-298 (December 1988).   |
|     | DG | Gö et al., "Relationship Between Mutability, Polarity and Exteriority of Amino Acid Residues in Protein Evolution," <i>Int. J. Peptide Protein Res.</i> 15(2):211-224 (February 1980).                    |
|     | DH | Haezebrouck et al., "Stability Effects Associated With the Introduction of A Partial and a Complete Ca <sup>2+</sup> -Binding Site Into Human Lysozyme," <i>Protein Eng.</i> 6(6):643-649 (August 1993).  |
|     | DI | Hanks et al., "The Protein Kinase Family: Conserved Features and Deduced Phylogeny of the Catalytic Domains," <i>Science</i> 241(4861):42-52 (July 1, 1988).  |
|     | DJ | Hanks, "Eukaryotic Protein Kinases," <i>Curr. Opin. Struct. Biol.</i> 1:369-383 (1991).   |
|     | DK | Hanks et al., "The Eukaryotic Protein Kinase Superfamily: Kinase (Catalytic) Domain Structure and Classification," <i>FASEB J.</i> 9(8):576-596 (May 1995)  |
|     | DL | Hanks et al., "Protein Kinase Catalytic Domain Sequence Database: Identification of Conserved Features of Primary Structure and Classification of Family Members," <i>Meth. Enzymol.</i> 200:38-62 (1991) |
|     | DM | Harosh et al., "The RAD3 Gene is a Member of the DEAH Family RNA Helicase-Like Protein," <i>Nucleic Acids Res.</i> 19(22):6331 (November 25, 1991)  |

|          |                 |                 |
|----------|-----------------|-----------------|
| EXAMINER | N. Smith S. Ban | DATE CONSIDERED |
|----------|-----------------|-----------------|

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

RECEIVED

|  |  |  |                        |  |                               |
|--|--|--|------------------------|--|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |                        | ATTY. DOCKET NO.<br>200130.512/ PP01598.002                        | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  | APPLICANTS<br>Lewis T. Williams et al.                     |                        |  |                               |
|  |  | FILING DATE<br>June 30, 2000                               | GROUP ART UNIT<br>1641 | RECEIVED<br>APR 25 2001<br>U.S. PATENT AND TRADEMARK OFFICE<br>CIP |                               |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE  |
|-------------------|----|-----------------|------|------|-------|----------|---|
|                   | EA |                 |      |      |       |          | DEC 6 2001<br>RECEIVED<br>U.S. PATENT AND TRADEMARK OFFICE<br>CIP |

| FOREIGN PATENT DOCUMENTS |    |                 |      |         | TRANSLATION<br>YES NO |
|--------------------------|----|-----------------|------|---------|-----------------------|
|                          |    | DOCUMENT NUMBER | DATE | COUNTRY |                       |
|                          | EB |                 |      |         |                       |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

|           |    |   |
|-----------|----|---|
| <i>My</i> | EC | Haynes et al., "The Bromodomain: A Conserved Sequence Found in Human, <i>Drosophila</i> and Yeast Proteins," <i>Nucleic Acids Res.</i> 20(10):2603 (May 25, 1992)                 |
|           | ED | Hill, "Signalling to the Nucleus By Members of the Transforming Growth Factor- $\beta$ (TGF- $\beta$ ) Superfamily," <i>Cell Signal</i> 8(8):533-544 (1996)                       |
|           | EE | Hodgman, "A New Superfamily of Replicative Proteins," <i>Nature</i> 333(6168):22-23 (May 5, 1988)   |
|           | EF | Hodgman, "A New Superfamily of Replicative Proteins," <i>Nature</i> 333(6173):578 (June 9, 1988)  |
|           | EG | Holmgren, "Thioredoxin," <i>Annu. Rev. Biochem.</i> 54:237-271 (1985)   |
|           | EH | Holmgren, "Thioredoxin and Glutaredoxin Systems," <i>J. Biol. Chem.</i> 264(24):13963-13966 (August 25, 1989)   |
|           | EI | Hunter, "Protein Kinase Classification," <i>Meth. Enzymol.</i> 200:3-37 (1991)  |
|           | EJ | Hunter, "Protein-Tyrosine Phosphatases: The Other Side of the Coin," <i>Cell</i> 58(6):1013-1016 (September 22, 1989)   |
|           | EK | Kelner et al., "Nonresponsiveness of the Metastatic Human Lung Carcinoma MV522 Xenograft to Conventional Anticancer Agents," <i>Anticancer Res.</i> 15(3):867-872 (May-June 1995) |
|           | EL | Kerr et al., "Signal Transduction: The Nuclear Target," <i>Current Op. Cell Biol.</i> 4(3):496-501 (June 1992)  |
|           | EM | Kiefer et al., "Regulation of Transcription and Translation," <i>Biochem. Soc. Trans.</i> 25(2):491-498 (May 1997)  |
|           | EN | Klug et al., "'Zinc Fingers': A Novel Protein Motif for Nucleic Acid Recognition," <i>TIBS</i> 12(12):464-469 (December 1987)   |
| <i>✓</i>  | EO | Knighton et al., "Crystal Structure of the Catalytic Subunit of Cyclic Adenosine Monophosphate-Dependent Protein Kinase," <i>Science</i> 253(5018):407-414 (July 26, 1991)        |

|   |                       |                 |                |
|---|-----------------------|-----------------|----------------|
| EXAMINER  | <i>N. S. Williams</i> | DATE CONSIDERED | <i>8/12/01</i> |
| * EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s). |                       |                 |                |

RECEIVED

|   |  |  |  |                        |   |                               |
|---|--|--|--|------------------------|---|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)   |  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |                        | ATTY. DOCKET NO.<br>200130.512/ PP01598.002                       | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br>(Use several sheets if necessary) |  |  | APPLICANTS<br>Lewis T. Williams et al.                     |                        | O P E<br>4/25/2001<br>P A T E N T S T R A D E M A R K O F F I C E |                               |
|   |  |  | FILING DATE<br>June 30, 2000                               | GROUP ART UNIT<br>1641 |   |                               |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
|                   | FA |                 |      |      |       |          | DECEMBER 06 2001           |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION<br>YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|--|----|-----------------|------|---------|--|
|  | FB |                 |      |         | NOVEMBER 2000  |

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |    |   |
|----|----|---|
| UW | FC | Koonin et al., "Vaccinia Virus Encodes Four Putative DNA and/or RNA helicases Distantly Related to Each Other," <i>J. Gen. Virol.</i> 73(4):989-993 (April 1992)  |
|    | FD | Kuang et al., "Differential Screening and Suppression Subtractive Hybridization Identified Genes Differentially Expressed in an Estrogen Receptor-Positive Breast Carcinoma Cell Line," <i>Nucleic Acids Res.</i> 26(4):1116-1123 (February 15, 1998) |
|    | FE | Kunau et al., "Two Complementary Approaches to Study Peroxisome Biogenesis in <i>Saccharomyces cerevisiae</i> : Forward and Reversed Genetics," <i>Biochimie</i> 75(1/2):209-224 (1993)   |
|    | FF | Kuriyan et al., "Structures of SH2 and SH3 Domains," <i>Curr. Opin. Struct. Biol.</i> 3:828-837 (1993)  |
|    | FG | Lambert et al., "From Anemia to Cerebellar Dysfunction: A Review of the Ankyrin Gene Family," <i>Eur. J. Biochem.</i> 211(1/2):1-6 (January 1993)   |
|    | FH | Liao et al., "Structure of Wheat Serine Carboxypeptidase II at 3.5-Å Resolution," <i>J. Biol. Chem.</i> 265(12):6528-6531 (April 25, 1990)  |
|    | FI | Linder et al., "Birth of the D-E-A-D Box," <i>Nature</i> 37(6203):121-122 (January 12, 1989)  |
|    | FJ | Marengere et al., "Structure and Function of SH2 Domains," <i>J. Cell Sci. Supplement</i> 18:97-104 (December 1994)   |
|    | FK | Masui et al., "Stabilization and Rational Design of Serine Protease AprM Under Highly Alkaline and High-Temperature Conditions," <i>Appl. Env. Microbiol.</i> 60(10):3579-3584 (October 1994)   |
|    | FL | Matsuno et al., "Suppressor of Hairless-Independent Events in Notch Signaling Imply Novel Pathway Elements," <i>Development</i> 124(21):4265-4273 (1997)  |
| ✓  | FM | Mayer et al., "A Novel Viral Oncogene With Structural Similarity to Phospholipase C," <i>Nature</i> 332(6161):272-275 (March 17, 1988)  |

EXAMINER *N. 1/nd S. L.* DATE CONSIDERED *8/11/01*

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

RECEIVED

|   |  |  |  |                               |
|---|--|--|--|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)   | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |  | ATTY. DOCKET NO.<br>200130.512/ PP01598.002                          | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br>(Use several sheets if necessary) |  | APPLICANTS<br>Lewis T. Williams et al. | O I P E<br>APR 25 2001<br>16411666<br>U.S. PATENT & TRADEMARK OFFICE |                               |
|   |  | FILING DATE<br>June 30, 2000           |  |                               |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|-----------------|------|------|-------|----------|----------------------------|
| GA                |                 |      |      |       |          | DEC 06 2001                |

RECEIVED

RECEIVED

## FOREIGN PATENT DOCUMENTS

APR 26 2001

|    | DOCUMENT NUMBER | DATE | COUNTRY               | TRANSLATION YES NO |
|----|-----------------|------|-----------------------|--------------------|
| GB |                 |      | TECH CENTER 1600/2900 | NO                 |

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|     |    |  |
|-----|----|--|
| NJM | GC | Mayer et al., "Signalling Through SH2 and SH3 Domains," <i>Trends Cell Biol.</i> 3:8-13 (January 1993)   |
|     | GD | Meldrum et al., "The PtdIns-PLC Superfamily and Signal Transduction," <i>Biochim. Biophys. Acta</i> 1092:49-71 (1991)  |
|     | GE | Michelsen et al., "The LIM Motif Defines a Specific Zinc-Binding Protein Domain," <i>Proc. Natl. Acad. Sci. USA</i> 90(10):4404-4408 (May 15, 1993)  |
|     | GF | Miller et al., "Repetitive Zinc-Binding Domains in the Protein Transcription Factor IIIA From <i>Xenopus</i> oocytes," <i>EMBO J.</i> 4(6):1609-1614 (June 1985)                                   |
|     | GG | Milner et al., "The G9a Gene in the Human Major Histocompatibility Complex Encodes a Novel Protein Containing Ankyrin-Like Repeats," <i>Biochem. J.</i> 290(2):811-818 (March 1, 1993).            |
|     | GH | Mordret, "MAP Kinase Kinase: A Node Connecting Multiple Pathways," <i>Biol. Cell</i> 79(3):193-207 (1993).   |
|     | GI | Morikawa et al., "Influence of Organ Environment on the Growth, Selection, and Metastasis of Human Colon Carcinoma Cells in Nude Mice," <i>Cancer Research</i> 48(23):6863-6871 (December 1, 1988) |
|     | GJ | Morton et al., "SH3 domains. Molecular 'Velcro'," <i>Current Biology</i> 4(7):615-617 (July 1, 1994)   |
|     | GK | Musacchio et al., "SH3-an abundant protein domain in search of a function," <i>FEBS Lett.</i> 307(1):55-61 (July 27, 1992)   |
|     | GL | Nishida et al., "The MAP Kinase Cascade is Essential for Diverse Signal Transduction Pathways," <i>TIBS.</i> 18:128-131 (April 1993)   |
|     | GM | Nusse, "The <i>int</i> Genes in Mammary Tumorigenesis in a Normal Development," <i>TIG</i> 4(10):291-295 (October 1988)  |
|     | GN | Olsen et al., "Improvement of Bacterial $\beta$ -Glucanase Thermostability by Glycosylation," <i>J. Gen. Microbiol.</i> 137(3):579-585 (March 1991)  |

|   |         |                 |
|---|---------|-----------------|
| EXAMINER  | NJM SBA | DATE CONSIDERED |
| * EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s). |         |                 |

|   |  |  |                        |  |                               |
|---|--|--|------------------------|--|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)   |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |                        | ATTY. DOCKET NO.<br>200130.512/ PP01598.002  | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br>(Use several sheets if necessary) |  | APPLICANTS<br>Lewis T. Williams et al.                     |                        | APR 25 2001<br>1641<br>U.S. TRADEMARK OFFICE<br>RECEIVED<br>DEC 06 2001<br>1600/2900 |                               |
|   |  | FILING DATE<br>June 30, 2000                               | GROUP ART UNIT<br>1641 |  |                               |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
|                   | HA |                 |      |      |       |          | 1600/2900 2001             |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION |
|--|----|-----------------|------|---------|-------------|
|  |    |                 |      |         | YES NO      |
|  | HB |                 |      |         |             |

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |    |   |
|----|----|---|
| NC | HC | Pawson, "Protein Modules and Signalling Networks," <i>Nature</i> 373(6515):573-580 (February 16, 1995)  |
|    | HD | Payre et al., "Finger Proteins and DNA-Specific Recognition: Distinct Patterns of Conserved Amino Acids Suggest Different Evolutionary Modes," <i>FEBS Lett.</i> 234(2):245-250 (July 1988)                 |
|    | HE | Peters et al., "An Abundant and Ubiquitous Homo-Oligomeric Ring-Shaped ATPase Particle Related to the Putative Vesicle Fusion Proteins Sec18p and NSF," <i>EMBO J.</i> 9(6):1757-1767 (June 1990)           |
|    | HF | Ponting, "Evidence for PDZ Domains in Bacteria, Yeast, and Plants," <i>Protein Sci.</i> 6(2):464-468 (February 1997)  |
|    | HG | Querol et al., "Analysis of Protein Conformational Characteristics Related to Thermostability," <i>Prot. Eng.</i> 9(3):265-271 (March 1996)   |
|    | HH | Ranson et al., "Increased Plasminogen Binding Is Associated With Metastatic Breast Cancer Cells: Differential Expression of Plasminogen Binding Proteins," <i>Br. J. Cancer</i> 77(10):1586-1597 (May 1998) |
|    | HI | Rhee et al., "Multiple Forms of Phospholipase C Isozymes and Their Activation Mechanisms," <i>Adv. Second Messenger Phosphoprotein Res.</i> 26:35-61 (1992)   |
|    | HJ | Rhee et al., "Regulation of Inositol Phospholipid-Specific Phospholipase C Isozymes," <i>J. Biol. Chem.</i> 267(18):12393-12396 (June 25, 1992)   |
|    | HK | Rosenfeld et al., "Zinc Fingers: Conserved Properties that Can Distinguish Between Spurious and Actual DNA-Binding Motifs," <i>J. Biomol. Struct. Dyn.</i> 11(3):557-570 (December 1993)                    |
| ✓  | HL | Ruderman, "MAP Kinase and the Activation of Quiescent Cells," <i>Curr. Opin. Cell. Biol.</i> 5(1):207-213 (February 1993)   |

EXAMINER

DATE CONSIDERED

8/11/01

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

RECEIVED

|  |  |  |  |  |                               |
|--|--|--|--|--|-------------------------------|
| FORM PTO-1449<br>(REV.7-80)  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE                       |  | ATTY. DOCKET NO.<br>200130.512/ PP01598.002                                      | APPLICATION NO.<br>09/611,527 |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  | APR 25 2001<br>O P E<br>P A T E N T<br>T R A D E M A R K<br>O F F I C E<br>S E C |  | APR 25 2001<br>O P E<br>P A T E N T<br>T R A D E M A R K<br>O F F I C E<br>S E C |                               |
| APPLICANTS<br>Lewis T. Williams et al.                                       |  | FILING DATE<br>June 30, 2000   |  | GROUP ART UNIT<br>1641666<br>TECH  |                               |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
|                   | IA |                 |      |      |       |          | 1600/2900 2001             |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION<br>YES      NO |
|--|----|-----------------|------|---------|----------------------------|
|  | IB |                 |      |         |                            |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

|    |  |
|----|--|
| IC | Russell et al., "Conservation Analysis and Structure Prediction of the SH2 Family of Phosphotyrosine Binding Domains," <i>FEBS Lett.</i> 304(1):15-20 (June 1992)  |
| ID | Sadowski et al., "A Noncatalytic Domain Conserved Among Cytoplasmic Protein-Tyrosine Kinases Modifies the Kinase Function and Transforming Activity of Fujinami Sarcoma Virus P130 <sup>gag-fps</sup> ," <i>Mol. Cell. Biol.</i> 6(12):4396-4408 (December 1986) |
| IE | Sánchez-García et al., "The LIM Domain: A New Structural Motif Found in Zinc-Finger-Like Proteins," <i>Trends Genet.</i> 10(9):315-320 (September 1994)  |
| IF | Schmid et al., "D-E-A-D Protein Family of Putative RNA Helicases," <i>Mol. Microbiol.</i> 6(3):283-292 (February 1992)   |
| IG | Schofield, P.N., "Patterns, Puzzles and Paradigms: The Riddle of the Homeobox," <i>Trends Neurosci.</i> 10(1):3-6 (January 1987)   |
| IH | Simon et al., "Diversity of G Proteins in Signal Transduction," <i>Science</i> 252(5007):802-808 (May 10, 1993)  |
| II | Sorimachi et al., "Structure and Physiological Function of Calpains," <i>Biochem. J.</i> 328(3):721-732 (December 15, 1997)  |
| IJ | Stabel, "Protein Kinase C—An Enzyme and Its Relatives," <i>Seminars Cancer Biol.</i> 5(4):277-284 (August 1994)  |
| IK | Sternweis et al., "Regulation of Phospholipase C By G Proteins," <i>Trends Biochem. Sci.</i> 17:502-506 (December 1992)  |
| IL | Tamkun et al., "brahma: A Regulator of Drosophila Homeotic Genes Structurally Related to the Yeast Transcriptional Activator SNF2/SWI2," <i>Cell</i> 68(3):561-572 (February 7, 1992)  |
| IM | Tamkun, "The Role of brahma and Related Proteins in Transcription and Development," <i>Curr. Opin. Genet. Dev.</i> 5(4):473-477 (August 1995)  |
| IN | Toma et al., "Grafting of a Calcium-Binding Loop of Thermolysin to <i>Bacillus subtilis</i> Neutral Protease," <i>Biochemistry</i> 30(1):97-106 (January 8, 1991)  |

|          |           |                 |
|----------|-----------|-----------------|
| EXAMINER | N. and SK | DATE CONSIDERED |
|----------|-----------|-----------------|

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

RECEIVED

|  |  |  |  |   |   |
|--|--|--|--|---|---|
| FORM PTO-1449<br>(REV.7-80)  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |  | ATTY. DOCKET NO.<br>200130.512/ PP01598.002 | APPLICATION NO.<br>09/611,527                                 |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  |  |  | APPLICANTS<br>Lewis T. Williams et al.      | PATENT<br>TRADEMARK<br>OFFICE<br>REC'D<br>APR 25 2001<br>1641 |
|  |  |  |  | FILING DATE<br>June 30, 2000                |   |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
|                   | JA |                 |      |      |       |          | APR 1600/2001              |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY               | TRANSLATION<br>YES NO |
|--|----|-----------------|------|-----------------------|-----------------------|
|  | JB |                 |      | TECH CENTER 1600/2001 |                       |

RECEIVED

DEC 06 2001

RECEIVED

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

|    |  |
|----|--|
| JK | Tonks et al., "Protein Tyrosine Dephosphorylation and Signal Transduction," <i>Trends Biochem. Sci.</i> 14:497-500 (December 1989)   |
| JD | Trowbridge, "A Prototype for Transmembrane Protein Tyrosine Phosphatases," <i>J. Biol. Chem.</i> 266(35):23517-23520 (December 15, 1991)   |
| JE | Valencia et al., "The ras Protein Family: Evolutionary Tree and Role of Conserved Amino Acids," <i>Biochemistry</i> 30(19):4637-4648 (May 14, 1991)  |
| JF | Varki et al., "Cloned Low Metastatic Variants From Human Lung Carcinoma Metastases," <i>Anticancer Res.</i> 10(3):637-644 (May-June 1990)  |
| JG | Varki et al., "Microscopic Metastasis of a Human Lung Carcinoma Cell Line in Athymic Nude Mice: Isolation of a Metastatic Variant," <i>Int J. Cancer</i> 40(1):46-52 (July 15, 1987)   |
| JH | Varki et al., "Spontaneously Metastasizing Variants of a Human Lung Carcinoma Cell Line: Monoclonal Antibody Characterization," <i>Tumor Biol.</i> 11:327-338 (November-December 1990)   |
| JI | Wakarchuk et al., "Thermostabilization of the <i>Bacillus circulans</i> Xylanase by the Introduction of Disulfide Bonds," <i>Protein Eng.</i> 7(11):1379-1386 (November 1994)  |
| JJ | Wassarman et al., "Alive with DEAD Proteins," <i>Nature</i> 349(6309):463-464 (February 7, 1991)   |
| JK | Wasyluk et al., "The Ets Family of Transcription Factors," <i>Eur. J. Biochem.</i> 211(1/2):7-18 (January 1993)  |
| JL | Yeatman et al. "Identification of a Differentially-Expressed Message Associated With Colon Cancer Liver Metastasis Using an Improved Method of Differential Display," <i>Nucl. Acids. Res.</i> 23(19):4007-4008 (October 11, 1995) |
| JM | Yeatman et al., "Identification of Genetic Alterations Associated With the Process of Human Experimental Colon Cancer Liver Metastasis in the Nude Mouse," <i>Clin. Exp. Metastasis</i> 14(1):246-252 (January 1996)               |

EXAMINER

Natalie SR

DATE CONSIDERED

8/1/01

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

|  |  |  |  |   |                                 |
|--|--|--|--|---|---------------------------------|
| FORM PTO-1449<br>(REV.7-80)  |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |  | ATTY. DOCKET NO.<br>200130.512/ PP01598.002 | APPLICATION NO.<br>09/611,527   |
| INFORMATION DISCLOSURE STATEMENT<br><i>(Use several sheets if necessary)</i> |  |  |  | APPLICANTS<br>Lewis T. Williams et al.      |                                 |
|  |  |  |  | FILING DATE<br>June 30, 2000                | GROUP ARTS UNIT<br>1641<br>1646 |

## U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
|                   | KA |                 |      |      |       |          | 1600/2900                  |
|                   | KB |                 |      |      |       |          | TECH                       |
|                   | KC |                 |      |      |       |          | RECEIVED                   |
|                   | KD |                 |      |      |       |          | APR 26 2001                |
|                   | KE |                 |      |      |       |          | TECH CENTER 1600/2900      |
|                   | KF |                 |      |      |       |          |                            |
|                   | KG |                 |      |      |       |          |                            |
|                   | KH |                 |      |      |       |          |                            |
|                   | KI |                 |      |      |       |          |                            |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION |
|--|----|-----------------|------|---------|-------------|
|  |    |                 |      |         | YES NO      |
|  | KJ |                 |      |         |             |
|  | KK |                 |      |         |             |
|  | KL |                 |      |         |             |
|  | KM |                 |      |         |             |
|  | KN |                 |      |         |             |
|  | KO |                 |      |         |             |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

|    |    |   |
|----|----|---|
| Ma | KP | Zhang et al., "Anti-Tumor Efficacy and Biodistribution of Intravenous Polymeric Micellar Paclitaxel," <i>Anti-Cancer Drugs</i> 8:696-701 (1997) |
| Ma | KQ | Genebank Accession No., R09152, April 5, 1995.  |
|    | KR | Genebank Accession No., AC004067, November 8, 1998.   |

EXAMINER *N. and SR* DATE CONSIDERED *8/12/01*

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

DEC 06 2001 RECEIVED